

**County Commissioners' Meeting Agenda**  
**Thursday, March 20, 2014 - 9:00am**  
150 Courthouse Drive, Driggs, ID – 1<sup>st</sup> Floor Meeting Room



9:00 **Meeting Called to Order** – Kelly Park, Chair  
*Amendments to the agenda.*

**Open Mic** - Public opportunity to address the board

9:15 **Public Works**

1. Road Committee Initial Organization Meeting
2. Forsgren Contract

**Planning & Building** – Jason Boal

**LEC Update** – Tom Davis

**Emergency Management** – Greg Adams  
Homeland Security Grant Approvals

**Board of Equalization** - Ag Exemption 5 Acres or Less

1. RP006110080010 & RP006110080020 – Brandon Lerwill
2. RP002480000020 – Stan Marshall
3. RP004450000100A – Jason Streit
4. RP004850000410 – Bart Woolstenhulme

**Administrative Business** *will be dealt with as time permits*

1. Approve Available Minutes
2. FY 2015 Budget
3. Other Business
  - a. TVBDC Monthly Financial Report
  - b. Yard Sale Update
  - c. Review April 4 Agenda
4. Committee Reports
5. Claims

**Adjourn**

**Upcoming Meetings**

April 4 – BoCC Meeting – Fair Board & Claims 9:00am  
April 9 – IAC Webinar “Life in a Fishbowl: Ethics for County Officials”  
April 14 – County EODH 8:30am; Regular Meeting 9:30am  
April 28 – Regular Meeting 9:00am  
May 12 – County EODH 8:30am; Regular Meeting 9:30am  
May 14 – IAC Webinar “Legislative Review”  
May 20 – Primary Election  
May 26 – Memorial Day Holiday  
May 27 – Regular Meeting 9:00am

COMMISSIONERS – As of 3-19-2014 I am aware of two individuals who emailed their Road Committee Applications to the correct Commissioners' E-Mail address and neither you nor I received them. These applications and verification of original dated email is attached.

Dennie Arnold  
Daphne Stoner

**From:** dennie arnold [mailto:arnfarm@silverstar.com]  
**Sent:** Wednesday, March 19, 2014 9:52 AM  
**To:** Dawn Felchle  
**Subject:** FW:

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**From:** dennie arnold [mailto:arnfarm@silverstar.com]  
**Sent:** Friday, March 07, 2014 11:39 AM  
**To:** 'commissioners@co.teton.id.us'  
**Subject:**

**From:** Daphne Stoner [mailto:daphne.stoner@gmail.com]  
**Sent:** Wednesday, March 19, 2014 1:01 PM  
**To:** Dawn Felchle  
**Subject:** Fwd: Road Committee Volunteer Application

Dear Ms. Felchle

Per your request I am forwarding my email of March 6 2014 with the attached application for a volunteer position with the Road Committee.

Sincerely  
Daphne Stoner  
354-3433 or 520-2684

----- Forwarded message -----  
**From:** **Daphne Stoner** <daphne.stoner@gmail.com>  
**Date:** Thu, Mar 6, 2014 at 10:36 AM  
**Subject:** Road Committee Volunteer Application  
**To:** commissioners@co.teton.id.us

Commissioners:

Attached, for your consideration, is my application for a volunteer position on the Teton County Road Committee.

Included in the attached document is a completed application form (page 1) as well as my resume (page 2).

Thank you for time and attention in this matter.

Sincerely,  
Daphne Stoner

**From:** Daphne Stoner [mailto:daphne.stoner@gmail.com]  
**Sent:** Wednesday, March 19, 2014 1:03 PM  
**To:** Dawn Felchle  
**Subject:** Fwd: Application for Road Committee

Dear Ms. Felchle

As you have requested I am forwarding my email of March 13, 2014 inquiring as to the status of my volunteer application to the road committee.

Sincerely,  
Daphne Stoner  
354-3433  
520-2684

----- Forwarded message -----  
From: **Daphne Stoner** <daphne.stoner@gmail.com>  
Date: Thu, Mar 13, 2014 at 11:00 AM  
Subject: Application for Road Committee  
To: [commissioners@co.teton.id.us](mailto:commissioners@co.teton.id.us)

Hello All,

I sent my application via email for the road committee last Thursday (March 6, 2014).

Please provide me with an update with the status of my application. I read in the Teton Valley News that all of the applications that were submitted were approved and I have not, as yet, heard from the BOCC.

Thank you for your time and attention.  
Daphne Stoner  
354-3433

## Application for Road Committee Appointment

Applicant's Name: DEKKIE ARNOLD  
Mailing Address: 10361 Hwy 32 ECLT ID 83424  
Residence Address: SAME  
Daytime Phone: 313 2874 Other Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_ Email: ARNFARM@S.WESTAR.COM  
Occupation/Employer: FARMER

Why do you want to serve on this committee?

TO TRY & FIGURE OUT A WAY TO BE FAIR  
& EQUITABLE ON ROAD MAINTENANCE WITH A  
LIMITED BUDGET.

Please describe your qualifications for serving on the road committee?

OBSERVATION ON WHAT WORKS & DOES NOT  
WORK ON GRAVEL ROADS + PAVED ROADS.  
WORKING WITH LARGE SUMS OF MONEY IN A  
BUDGETING PROCESS.

What unique perspective do you bring to the committee?

CONCERNS + HOPEFULLY SOLUTIONS TO AGRICULTURE FARM TO MARKET ROADS.

Are you able to meet the time commitment over the next 5 months?

YES

Are daytime or evening meetings better for you?

DAYTIME

Any days that do NOT work?

NOT SPECIFICALLY

## Application for Road Committee Appointment

Applicant's Name: Daphne Stoner

Mailing Address: 1482 South 6000 West, Driggs, ID 83422

Residence Address: 1482 South 6000 West, Driggs, ID 83422

Daytime Phone: 208-520-2684 Other Phone: 208-354-3433

Fax: \_\_\_\_\_ Email: daphne.stoner@gmail.com

Occupation/Employer: Technical writer and editor/Self-employed

**Why do you want to serve on this committee?** The Teton County road committee is undertaking the challenge of considering the immediate and future needs of an entire community in the context of the financial and logistical realities of fulfilling those needs. I have the motivation, desire, skills, and experience that will allow me to serve as an effective member of the committee.

**Please describe your qualifications for serving on the road committee?** My professional expertise and experience in project management, new program development, and grant and proposal writing are aligned with the goals and tasks of the road committee (See attached resume).

*Project and Budget Planning and Management:* As lead and co-investigator on multi-million dollar projects, I have developed and monitored budgets, project schedules, milestones and subcontracts. With this experience I will be able to assist the committee in: identifying issues; defining relevant goals and objectives; and making recommendations for the approach and metrics that are needed to achieve the county's road improvement, maintenance and snowplowing goals.

*Strategic Planning:* I have experience in identifying successful grant and proposal opportunities that have netted over \$10 million in funding. I have led inter- and intra-agency meetings to identify and develop collaborative projects. These skills will enable me to support the committee during the: systematic project review and decision-planning; assessment of benefits and impacts of various road improvement and maintenance strategies; and identification of potential funding.

*Writer and Editor:* I have extensive experience in the writing, editing and review of technical articles, review documents, project reports, and presentations. My writing and editing skills will assist in the preparation of project review documentation, reports, and presentations.

**What unique perspective do you bring to the committee?** I have no vested interest in the outcome of the engineering review and planning. I am aware that both subjective and objective factors can influence the outcome of engineering reviews and decision-planning. Therefore, I believe that the weighting factors and data inputs used for the review and planning processes must be based on verifiable data sets, information and documents whenever possible. To that end, I have the ability to acquire and interpret data and information from a variety of oral and written sources.

**Are you able to meet the time commitment over the next 5 months?** Yes.

**Are daytime or evening meetings better for you?** Both daytime and evening meetings are acceptable.

**Any days that do NOT work?** Sundays



## KNOWLEDGE & SKILLS

### Program Management

Planning, Budgeting, Supervision, Purchasing

### Writing & Editing

Technical articles, Reports, Books, Chapters

### Grantsmanship

Grants, Technical Proposals

### Technical Background

Microbiology, Environmental chemistry, Biotechnology

### Microsoft Office

Word, Powerpoint, Publisher, Excel, Access

### Adobe Creative Suite

InDesign, Illustrator, Acrobat

### Education & Outreach

Teaching, Training, Brochures, Web Content

### Research & Development

Environmental microbiology, bioprocessing, control systems

## EXPERIENCE

### Freelance Writer

Driggs, ID  
March 2010 – Pres

Jointly developed review documents and annual reports; outlined, compiled and edited documents based on customer input; reviewed document layouts; currently writing a book

### Eastern Idaho Community Action Partnership

Director Grants and New Programs  
Idaho Falls, ID  
July 2007 – March 2009

Acquired ~\$140,000 in grants. Researched grant opportunities; prepared grant applications; mediated inter- and intra-agency meetings to identify and develop collaborative proposals; developed brochures and web content for educational outreach and fundraising; prepared reports.

### University of Idaho

Idaho Falls, ID  
Research Associate Professor  
Chemistry Department  
July 2004 – April 2008

Principal Investigator on ~\$1.5 million National Aeronautics and Space Administration grants; published 8 technical articles; made technical presentations at national and international conferences; monitored budgets; provided oversight on subcontracts with collaborating institutions; member of NASA proposal review teams; supervised student and post-graduate interns.

### KBR Services

Arlington, VA  
Proposal Consultant  
Jan 2004 – December 2004

Information archivist and section lead for a University of Chicago-led team for INL Management & Operations proposal. Collected and collated information for use by the members of the proposal team; developed proposal content with other team members.

### Idaho National Laboratory

Idaho Falls, ID  
Scientist - Advisory Scientist  
Biotechnology Department  
July 1988 – September 2003

Principal Investigator or Co-Principal Investigator on ~\$8.5 million in programs for the Department of Energy; received 2 patents; published 34 technical articles, 6 chapters and an edited book; made 80 technical presentations at national and international conferences; monitored budgets and project schedules provided oversight on subcontracts with collaborating institutions; participated on proposal review teams; supervised staff, students and post-graduate interns.

## EDUCATION

### B. Sc. Microbiology

University of Maine  
Orono, ME

### Ph.D. Microbiology

University of Maryland  
College Park, MD

*Daphne  
Lisabet  
Stoner*

(208) 520-2684  
daphne.stoner@gmail.com

1482 South 6000 West  
Driggs, ID 83422

### Road Committee Contact Info

NAME	Meeting Pref.
Dana Ehlen	Anytime
Aaron Jenkins	Daytime Best & Not Avail. Tues. after 6:30pm or Wed. noon to 1pm
Darryl Johnson	Evenings
Sarah Johnston	Daytime Tuesdays & Thursday are preference
Mark Ricks	Evenings
Brent Robson	Evenings

Road Committee Notebook Includes: *(provided by Teton County Engineer, Jay Mazalewski)*

1. Teton County Code Titles 2 & 11
2. Teton County Comprehensive Plan (Portions related to transportation and economic development plan.)
3. Teton County Transportation Plan including relevant maps
4. List of Proposed Capital Improvement Projects related to Roads, Pathways and Bridges/Culverts
5. Highways & Street Guidelines for Design & Construction
6. Teton County Snow Plowing Policy
7. Teton County Administrative Policies
8. FY 2014 Budgets for Road & Bridge and Special Road Levy

All of the above items are available on the county website @ [www.tetoncountyidaho.gov](http://www.tetoncountyidaho.gov)

## TETON COUNTY ROAD COMMITTEE - JOB DESCRIPTION

### WHAT IS THE COMMITTEE CHARGED WITH ACCOMPLISHING?

**Goal:** Identify and improve Road and Bridge spending strategies that:

- 1) are fiscally responsible and cost effective
- 2) are fair, consistent and predictable, and
- 3) implement goals and objectives identified in the Teton County Comprehensive Plan, Teton County Economic Development Strategy and the Teton County Transportation Plan

**Objective 1:** determine whether the current criteria utilized by the County Engineer for snowplowing meets the goals stated above.

**Objective 2:** Provide recommendations that identify other sources of revenue and what that would mean for the taxpayer. (e.g. *Is current allocation enough to meet needs?*)

**Objective 3:** Review and provide recommendation on the current policy on how citizens can improve county roads that meet the goal above and identify potential liability to the county.

**Objective 4:** Identify resources and provide a cost/benefit analysis on how to rank or qualify low use and/or agricultural roads that meet the goal stated above.

**Objective 5:** Review industry standards for construction/management comparables.

#### **Resources (including but not limited to):**

Teton County Comprehensive Plan  
Teton County Economic Development Strategy  
Teton County Transportation Plan  
Teton County Road and Bridge Budget  
Snowplowing Criteria  
Teton County Code

#### **Questions that need to be addresses:**

- A chairman will be assigned and act as liaison to the BoCC.
- The committee reports to Board.
- County staff will be available on a limited basis, and requests will come through the Board.
- Recommendations should be presented to the Board no later than the August 11<sup>th</sup> BoCC meeting.
- *Board MUST have language for Nov. Ballot for Road Levy adopted by August 25, 2014.*
- Meetings will be open to the public and will be held in the BoCC Meeting Room – 1<sup>st</sup> Floor Courthouse

#### **Committee member qualifications:**

- engineers
- transportation planners
- road construction managers
- finance/budget manager (with experience with multimillion dollar budgets)
- strategic planner



March 14, 2014

Teton County, Idaho  
ATTN: Mr. Jay Mazalewski, County Engineer and PWD  
150 Courthouse Drive, Room 117  
Driggs, ID 83422

**Subject: Teton County Landfill Cap Rehabilitation Agreement Amendment 2 – Design and Construction Observation**

Dear Mr. Mazalewski:

Forsgren Associates Inc. is submitting an amendment to the original agreement dated March 25, 2013 regarding the Teton County Landfill Cap Rehabilitation Project. The agreement describes a scope of services for design, bidding, and construction observation for the anticipated landfill cap rehabilitation. It is instructive to note that the direction provided by the County, to determine if there was any value to the existing cap that governed our efforts during the planning phase of this project resulted in a substantial reduction in the County's expected cost for this project.

The initial position of the Idaho Department of Environmental Quality (DEQ) was to completely replace the existing cover with a new ET cap or a new cover that meets the requirements of a Federal Subtitle D cap. Initial planning level cost estimates, which typically have a plus 100% and a minus 50% confidence level, were compiled showing that replacement of the ET cap could cost an estimated \$2.6 million or \$922,000 per foot of new cover; replacement of the cover with a Subtitle D cover was estimated to cost nearly \$3.5 million. As previously stated, the County instructed that the first phase of the project necessitated performing an evaluation of the condition of the current ET cap constructed over the landfill to determine what value, if any, could be relied upon with respect to the requirements in the Idaho Solid Waste Facilities Act. Results of this investigation were presented to DEQ and cumulated in agreement on February 20, 2014 for a conceptual plan allowing for rehabilitation of the existing cap instead of a complete replacement. This concession by DEQ, while still presenting some challenges for the County, provides a substantial reduction in the anticipated cost as a rehabilitation of the existing cap is less construction effort and imported soil material than even an ET Cap replacement.

One of the preferences recommended by DEQ was the rehabilitation approach to design and construction. The rehabilitation approach approved by DEQ requires a detailed evaluation of the existing cover to verify the cap is comprised of fine-grained soil and meets the minimum depth requirement of 36 inches as required in the 2007 design specifications. A plan to ensure the cap meets these requirements and details to remediate the areas that are currently deficient will be developed in a Preliminary Design Report. This report will require on-going discussions with DEQ for approval as details of the remediation plan are determined.

The scope of work presented in this amendment is to meet the remediation approach preferred by DEQ, which will require full-time construction observation with additional presence by the engineer to

document field conditions and render decisions regarding landfill cap rehabilitation measures. This approach increases the level of effort for the engineer and contractor during the construction phase and increases the attendant costs for these services. However, since this approach does not call for the complete replacement of the existing cover, overall costs savings to the project will occur due to most of the existing cap either needing no additional remediation or one foot or less of additional cover.

Another consideration is the County's preference to stage the project over more than one construction season to accommodate the County's budget for solid waste and the funding availability for landfill closure. The cost presented in the amendment for engineering and observation services is based on the assumption of construction occurring over a two-year period.

In summary, the County has made certain decisions regarding resolution of the landfill cap issue, decisions that appear at this juncture to favor the County with respect to potential costs for landfill cap replacement. As we proceed with design and construction services, it will be important to continue the cooperative atmosphere we have established between yourself, Forsgren Associates, and the Commissioners along with DEQ.

Sincerely,



Brent. E. Crowther, P.E.  
Regional Manger, Northwest States  
Forsgren Associates, Inc.

Attach: Revised Engineering Amendment

**AMENDMENT TO ENGINEERING AGREEMENT  
FOR  
PROFESSIONAL SERVICES  
REHABILITATION OF LANDFILL CAP  
DESIGN AND CONSTRUCTION ADMINISTRATION**

WHEREAS:

FORSGREN ASSOCIATES, INC. ("FORSGREN" or "ENGINEER") entered into an Agreement on March 25, 2013 to perform engineering services for Teton County ("OWNER" or "CLIENT") in connection with the project known as the Teton County Landfill Cap Rehabilitation ("Project");

Teton County desires to amend this Agreement in order to clarify services previously contracted with the ENGINEER;

The ENGINEER agrees to amend the original agreement and perform the following additional engineering services.

**SECTION I. AMENDED SCOPE OF SERVICES**

The ENGINEER previously completed services in connection with the project to investigate and evaluate the intrinsic value of the existing landfill cap wherein it was established and subsequently accepted by DEQ the existing cap had some value as an evapotranspiration (ET) cap. Because of this effort by the Owner and their ENGINEER, the County is allowed to develop a cap rehabilitation design that does not call for a complete replacement of the existing cap. Further, DEQ outlined some design parameters in addition to those stipulated in the Idaho Solid Waste Facilities Act to which the rehabilitation will be subject including 1) development of a preliminary engineering report that addresses a description of the rehabilitation process, the design and construction approach that facilitates further inspection of the existing ET cap, the QA/QC plan anticipated for construction, and the plan for post-construction monitoring of the landfill cap performance; 2) a design that incorporates a minimum thickness determined from ET cap modeling and climatic conditions specific to the site, 3) a design and construction approach that facilitates further inspection of the existing ET cap, 4) a QA/QC plan that mitigates the risk of variability in the cap material outside of accepted parameters, and 5) construction of in-situ post-construction monitoring features.

The original agreement discussed an anticipated scope for the project from the investigation stage through post-construction and monitoring but reserved detailed descriptions of design and construction observation work until the investigative work was complete. That work is now complete as described in the original agreement and this amendment clarifies the scope and fee for preliminary design, final design, bid services, construction observation, and other related services.

ENGINEER anticipates providing additional services for the Project as described in Exhibit A.

## **SECTION II. TERMS AND CONDITIONS OF ENGINEERING SERVICES**

The "Forsgren Associates, Inc., Terms and Conditions for Professional Services," shall remain unchanged other than those sections and exhibits listed herein.

## **SECTION III. AMENDED RESPONSIBILITIES OF OWNER**

In addition to those responsibilities outlined in the original agreement, the OWNER shall provide the following information and services.

- The construction approach may entail a considerable effort from the County depending upon the County's preferences and DEQ's allowance for County involvement in the construction work. The County effort may range from daily monitoring of the landfill cap performance to construction effort to remove and stockpile the topsoil. The County will also likely provide some, if not all, of the soil material used for construction of the cap.

## **SECTION IV. AMENDED COMPENSATION**

### **Lump Sum Tasks**

The Engineer shall be compensated for the following tasks under this Agreement on a lump sum basis in the amount of Two Hundred Ten Thousand Dollars (\$210,000) distributed among the following tasks.

<b>Lump Sum Tasks</b>	<b>Fee</b>
100 Project Management	\$20,000
200 Phase 0001, Planning-Complete Planning Scope of Work	\$30,000
300 Environmental	\$0
400 Preliminary Design (Preliminary Design Report)	\$40,000
500 Design	\$40,000
600 Bid Services	\$T&M
700 Phase 0001, Construction Administration (Engineering)	\$75,000
800 Survey	\$5,000
900 Additional Services	\$TBD
Total	\$210,000

The lump sum fee for base services includes ordinary reimbursable expenses defined as transportation travel, computer usage, telephone, and shipping. Extraordinary reimbursable expenses are not included and ordinary reimbursable expenses may apply on additional services requested by the Owner and which are compensated on a time and materials basis.

### Time and Materials Tasks

The Engineer shall be compensated for the following tasks and may be compensated for certain Additional Services under this Agreement on a time and materials basis for an estimated amount of One Hundred Forty Thousand Dollars (\$140,000) distributed among the following tasks. The stated value is an estimate only and the actual cost may be less than, or more than, the estimated amount. The Engineer will not perform work beyond the described scope or invoice above the estimated amount without prior approval from the Owner. A table of billing rates associated with each labor class code as well as for reimbursable expenses is attached to the agreement. Other additional services not listed but requested by the Owner or required by the Agency shall be compensated on a time and materials basis.

<b>Time and Materials Tasks</b>	<b>Estimated Fee</b>
200 – Phase 0002, Coordination Meetings with DEQ Throughout Project	\$20,000
600 – Bid Services	\$20,000
700 – Phase 0002, Resident Project Representative	\$75,000
702 – Materials Testing During Construction	\$25,000
<b>Total</b>	<b>\$140,000</b>

<b>Additional Services Tasks</b>	<b>Cost</b>
901 Construction Survey	\$25,000
902 Additional Services – Performance Period Services	\$5,000
903 Additional Services – Additional Testing and Monitoring	TBD
904 Additional Services – ET Cap Performance Monitoring	TBD
905 Additional Services – Grant Procurement and Administration	TBD
906 Additional Services – Erosion and Sediment Control Plan or (ESCP)	TBD
906 Additional Services – Stormwater Pollution Prevention Plan (SWPPP)	TBD
907 Additional Services – Financial Analysis and Rate Study	TBD
908 Additional Services – Demonstration Project	TBD
<b>Total</b>	<b>\$30,000</b>

Ordinary reimbursable expenses defined as local transportation, computer usage, copies, telephone, and postage, shall be added to the time and materials tasks in the form of a \$5 per billed manhour and labeled a Reimbursable Project Expense. Extraordinary reimbursable expenses such as travel, lodging, per diem, equipment, and subconsultants will be invoiced as a reimbursable expense.

### Terms and Definitions

The amount of any sales tax, excise tax, value added tax (VAT), or gross receipts tax that may be imposed on this Agreement shall be added to the ENGINEER'S compensation as Reimbursable Expenses.

Compensation terms are defined as follows:

*Time and materials* shall mean a rate extracted from the current rate table for a specific labor category that includes direct labor cost, indirect labor cost, and profit.

*Lump Sum* shall mean a fixed amount, which shall be the total compensation agreed upon in advance for Scope of Services. As the project duration is expected to exceed one billing cycle, work will be invoiced monthly reflecting progress on each task through the date of the invoice.

*Reimbursable Expense* shall mean the actual expenses incurred directly or indirectly in connection with the Project for transportation travel, subconsultants, subcontractors, computer usage, telephone, telex, shipping and express, and other incurred expense. ENGINEER will add ten percent (10%) to invoices received by ENGINEER from subconsultants and subcontractors to cover supervision, administrative, and insurance expenses.

## SECTION V. PERIOD OF SERVICE

Upon receipt of written authorization to proceed, ENGINEER shall perform the services according to the following schedule:

within the time period(s) described in Exhibit A.

Unless otherwise stated in this Agreement, the rates of compensation for ENGINEER'S services have been agreed to in anticipation of the orderly and continuous progress of the project through completion. If the specified dates for completion are attributable to the OWNER, the time for performance of those services shall be automatically extended for a period which may be reasonably required for their completion and all rates, measures and amounts of ENGINEER'S compensation shall be equitably adjusted through negotiation by the OWNER and the ENGINEER.

## SECTION VI. AUTHORITY

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first written above.

FORSGREN ASSOCIATES, INC.  
"ENGINEER"

TETON COUNTY  
"OWNER"

SIGNATURE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME: Brent E. Crowther, P.E.

NAME: \_\_\_\_\_

TITLE: Division Manager

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

## **EXHIBIT A**

### **SCOPE OF SERVICES**

The Teton County Landfill ET Cap Rehabilitation – Previously, the County authorized the Engineer to complete an Existing Data Review and Cost Benefit Assessment report that suggested that additional testing and monitoring of the existing ET Cap was warranted to demonstrate a “value” allowing the design of a rehabilitative addition to the existing ET cap versus accepting the assertion that the existing ET cap has no value and an entirely new cap would need to be designed and constructed over the top of the existing cap. Subsequently, the County authorized an amendment to that scope of services to develop a measure of the ET Cap performance derived from instruments designed to measure the soil moisture profile in the ET Cap. In particular, hydraulic conductivity, agronomic properties, and soil moisture relationships were established. Most importantly for the County, that scope of services culminated in an unanticipated collaborative workshop with the Department of Environmental Quality (DEQ) wherein DEQ requested additional design and performance requirements beyond those described in the Idaho Solid Waste Facilities Act and to which the County agreed for subsequent design and construction of the landfill cap rehabilitation.

#### **TASK 100 – PROJECT MANAGEMENT SERVICES**

Project management is an essential element of every project. Project management describes the activity necessary to organize and coordinate resources to accomplish project objectives related to budget and schedule. Project management services will remain as described in the original agreement with applicable tasks continuing through the scope of services defined in this amendment.

##### **Phase 0001 - Project Initiation**

The Project Management Institute describes a document labeled as a project charter that formalizes the initiation of a project and authorizes the project manager to apply organization resources to the project activities. A project charter documents the need for the project, justifies the effort and expense, and describes the tasks necessary to define the project in terms of identifying the Owner’s expectations and assigning resources to meet those expectations according to an established schedule. For that endeavor, the Engineer agrees to identify the anticipated work tasks and deliverables, establish a preliminary project schedule, assign appropriate resources including personnel to the project, and prepare a preliminary budget for completion of the work tasks using the assigned resources as herein stated. The Engineer agrees to prepare for, attend, conduct, and document project kickoff meeting at the project site or the Engineer’s office to identify the Owner’s goals and expectations and communicate the schedule and budget information. The meeting attendees will include the Owner, the Engineer, and other stakeholders as determined by the Engineer and Owner. This effort may also include consultation with DEQ for concurrence with the project approach and to ascertain their expectation regarding the level of effort and the results of the testing and monitoring effort.

- Identify Owner goals and expectations along with milestones along with those of the regulatory and/or funding agency(ies) and other stakeholders.
- Identify standard processes, guidelines, work instructions, regulations, templates, and performance monitoring criteria required by the Owner, regulatory agency(ies), and funding agency(ies) that will apply to the project.
- Define methods of communication for project decisions and products, protocols for communication, and distribution lists for project information and deliverables.
- Determine resources and assign responsibilities for tasks identified in the engineering agreement and scope of services.
- Prepare financial controls including time reporting and budget for completion of the tasks identified in the engineering agreement.
- Identify change control procedures including how changes will be evaluated and approved.

### **Phase 0002 - Project Planning**

The Engineer agrees to establish project accounting; develop a project guide for internal use clarifying the project goals, outlining responsibilities for project stakeholders, presenting the project schedule, defining the quality assurance and quality control procedures, and obtain staffing commitments. This activity typically involves one or more meetings with project staff including subconsultants. In addition, this tasks may entail preparation of:

- Develop a project schedule, review the schedule with the Owner, and provide DEQ a schedule within 30 calendar days of concept approval by the Commissioners which will detail the agreed upon tasks and activities, including the construction completion date.

### **Phase 003 - Project Execution**

Project management includes monitoring the project throughout the project duration to evaluate project progress toward meeting the established goals, reviewing the product, schedule maintenance, project documentation, and communicating project progress to the Owner. Specific tasks may include:

- Project design coordination meetings with project design team anticipated biweekly during design phase,
- Report project progress at Commissioner's meetings anticipated bimonthly over the 18 month project period, although the reporting schedule may vary depending upon project needs. (assumed as 9 meetings),
- Project management meetings/calls with Teton County Public Works Director during design phase and during construction start-up.
- Update the project schedule in response to changes in the project scope or requirements.

#### **Phase 004 - Project Monitoring and Controlling**

Project management includes monitoring the project throughout the project duration to evaluate project progress toward meeting the established goals, reviewing the product, schedule maintenance, project documentation, and communicating project progress to the Owner.

#### **Phase 005 - Project Closeout.**

Following acceptance by the Owner, the Engineer will initiate close-out procedures for the project

#### **Responsibilities and Deliverables**

##### Owner Responsibilities:

- Review and comment on the scope documents.
- Issue a Notice to Proceed. Such authorization to proceed as stated above has been authorized by Owner per this agreement.

##### Deliverables:

- Two (2) draft copy(ies) of the engineering amendment and scope of services.
- Two (2) final copy(ies) of the engineering amendment and scope of services.
- Schedule of agreed upon tasks and activities.

### **TASK 200 – PLANNING**

#### **Phase 0001 - Complete Planning Scope of Work**

The planning portion of this project entails conference calls and meetings with DEQ to come to an agreement regarding the existing cap value and for the design path forward to the landfill cap rehabilitation

#### **Responsibilities and Deliverables**

##### Owner Responsibilities:

- Representation at DEQ meetings.

##### Deliverables:

- Design and performance requirements for subsequent design and construction of the landfill cap rehabilitation.

## **Schedule**

- **SCHEDULE OF ACTIVITIES** - 30 calendar days following receipt of a written Authorization to Proceed issued by the OWNER.

### **Phase 0002 – Coordinate Meeting with DEQ Throughout Project**

During discussions at the collaborative workshop with the Department of Environmental Quality (DEQ), DEQ requested additional design and performance requirements beyond those described in the Idaho Solid Waste Facilities Act and to which the County agreed for subsequent design and construction of the landfill cap rehabilitation. DEQ and the County have expressed the need for the Engineer to communicate design and quality assurance and quality control measures with DEQ via coordination meetings.

The Engineer agrees to meet with DEQ in conjunction with the Owner representatives to discuss the project progress, to gather a better understanding of the additional design elements required by DEQ, and to negotiate design criteria and the design approach. In addition, the DEQ consultation is intended to solicit their consent, and preferably their support, for the proposed approach to the remaining project tasks. This task will initiate early in the project and continue throughout the preliminary design phase.

## **TASK 300 – ENVIRONMENTAL**

The Engineer does not anticipate preparation of environmental documents for NEPA clearance or other specialized environmental surveys, investigations, or assessments. If required, the Engineer may provide these services after concurrence of an appropriate scope and fee with the Owner.

## **TASK 400 – PRELIMINARY DESIGN**

### **Phase 0001 - Preliminary Engineering Report**

Based on the data collected, analyzed, and reported in the planning phase of the project, and in cooperation with the requested rehabilitation constraints asserted by DEQ, the Engineer agrees to prepare a Preliminary Design Report. The Engineer anticipates the Preliminary Design Report will address the following topics:

1. Rehabilitation alternatives,
2. Preliminary design of the recommended alternative including quantification and qualification of potential ET cap material, ET cap modeling, and recommended site contouring,
3. Updated opinions of probable cost for the recommended alternative,
4. Design and construction approaches for the recommended alternative,
5. A quality control/quality assurance plan for materials used in construction, and

6. Recommendations for a post-closure monitoring plan for the rehabilitated cap.

Rehabilitation Alternatives

Discussions with DEQ during the planning phase identified a probable design alternative, however, for completeness, the Engineer agrees to evaluate rehabilitation alternatives incorporating the knowledge acquired to date by the Engineer in the planning phase of the project, the data generated by previous design efforts, and the comments provided by DEQ in reviewing the various submittals. The discussion of rehabilitation alternatives is intended to collate the various and disparate data and information into a summary while combining it with relevant design elements and preliminary costs selected alternatives.

Recommended Alternative

The Engineer agrees to provide preliminary design information for the recommended alternative including: evaluation of the suitability of available materials for construction of an ET cap including sampling and analysis of samples of available materials for water holding capacity, development of material properties for the materials used in cap construction, modeling of the proposed cap design in *Unsat-H* or other model selected by the Engineer to predict the performance of any recommended measures to rehabilitate the ET Cap assuming the calibration of the model from previous modeling efforts is acceptable, preliminary design of final cap contours, and quantification of the new material necessary to contour and construct the cap to the minimum, and maximum, soil depths.

Update Engineer's Opinion of Probable Cost

The Engineer agrees to update the opinion of probable cost (EOPC) based for the recommended alternative based upon the information generated in the preliminary design effort. The EOPC developed at this stage is anticipated to be consistent with preliminary design estimates as suggested by the Society for Cost Estimating Engineers.

Design and Construction Approaches

During discussions with DEQ to date, they have expressed a preference for a construction approach that allows a physical examination of the underlying existing cap material for further delineation of acceptable and non-acceptable in-situ material. However, it may be prudent to discuss the advantages and disadvantages of the two conceptual approaches presented to DEQ for consideration. Therefore, the preliminary design will further explore the two approaches; gathering additional field data on the existing cap and preparing a traditional design-bid-build set of Contract Documents as well as an approach wherein the Engineer can evaluate the existing underlying cap material as construction progresses with field decisions altering the design throughout construction. In addition, the Engineer will, in collaboration with the Owner, develop a phased approach to the construction that accommodates the Owner's budgetary constraints.

### Quality Control/Quality Assurance Plan

As DEQ has expressed concern regarding the evidence of a quality control/quality assurance (QA/QC) program for the existing cap construction, the Engineer agrees develop and describe a quality control/quality assurance plan for rehabilitation of the ET cap. The Engineer anticipates the QA/QC program will entail qualifying the type of sampling that will be conducted, quantifying the number of samples, and providing discriminatory criteria for accepting or rejecting soil material.

### Monitoring Plan

The Engineer agrees to develop a recommendation for providing and performing post-construction monitoring the performance of the rehabilitated landfill cap. The Engineer anticipates the monitoring program will entail in-situ measurement of soil moisture, storm runoff, and soil permeability; possibly with the installation of one or more lysimeters or other means of measurement.

### **Responsibilities and Deliverables**

#### Owner Responsibilities:

- Review and comment on the preliminary design report.
- Collaborate with the Engineer on development of the approach to phased construction including discussion of budget constraints and participation of the County in various aspects of the construction.

#### Deliverables:

- Five (5) draft copy(ies) of the Preliminary Engineering Report.
- Five (5) final copy(ies) of the Preliminary Engineering Report.

### **Schedule**

- PRELIMINARY ENGINEERING REPORT – 60 calendar days following the approval of the SCHEDULE OF ACTIVITIES

## **Task 500 – FINAL DESIGN**

### **Phase 0001 - 50% Design Documents**

Following acceptance of the Preliminary Engineering Report, the Engineer agrees to prepare design documents described as 50% complete and defined as draft contract documents, draft construction drawings minus the detail sheets, and unedited technical specifications. Assuming the recommended alternative is the one currently preferred by DEQ, that is one that includes

comprehensive evaluation of existing cap material during the construction phase, the final design documents will necessarily have some variability to accommodate the field decisions.

### **Phase 0002 - 90% Design Documents**

Following review and acceptance of the 50% design documents, the Engineer agrees to revise the 50% design documents per the comments from the Owner and to prepare 90% design documents defined as edited contract documents, complete construction drawings including detail sheets, and edited technical specifications.

### **Phase 0003 Construction Documents**

Following review and acceptance of the 90% design documents, the Engineer agrees to revise the 90% design documents per the comments from the Owner and to prepare documents suitable for construction of the project and defined as contract documents, construction drawings including detail sheets, and technical specifications.

### **Responsibilities and Deliverables**

#### Owner Responsibilities:

- Review and comment on the design documents.
- Collaborate with the Engineer on development of the approach to phased construction including discussion of budget constraints and participation of the County in various aspects of the construction.

#### Deliverables:

- Three (3) draft copy(ies) of the 50% design documents on 8-1/2" x 11" bond paper except for the drawings which will be provided on 11" x 17" bond paper with the scale at half-size.
- Three (3) draft copy(ies) of the 90% design documents on 8-1/2" x 11" bond paper except for the drawings which will be provided on 11" x 17" bond paper with the scale at half-size.
- Two (2) stamped final copy(ies) of the design documents on 8-1/2" x 11" bond paper except for the drawings, one set which will be provided on 11" x 17" bond paper and one set on 22" x 34" bond paper.
- DESIGN and START of CONSTRUCTION - 60 days following DEQ approval of the PRELIMINARY ENGINEERING REPORT. .

### **TASK 600 – BID SERVICES**

The Engineer agrees to produce and provide bid documents to contractors, agencies, and the Owner for the bid process and agrees to perform services during the bid phase as below:

- Advertisements for Bid – Prepare and provide a copy of the Bid Advertisement for legal publication by the Owner.
- Preparation and distribution of bid documents – Print, copy and bind bid documents and distribute Bid Documents to Owner, prospective bidders, agencies, and contracting magazines.
- Pre-bid meeting - Conduct and document pre-bid meeting and site tour.
- Addenda and clarification of Bid Documents – Receive and respond to questions from prospective bidders and suppliers. Document questions and prepare necessary Bid Document addenda based on comments from Bidders and Suppliers.
- Receive Bids - Assist Owner with receipt of bids by conducting the bid opening and documenting the opening of Bids.
- Evaluate Bids – Perform due diligence on Bids to determine if Bids are responsive (licensed contractors, bonds, signatures, references, etc.), tabulate Bids and provide results to the Owner.
- Recommend Award of Bid – Provide Owner with written recommendations relative to awarding the contract for construction based on bidder's responsiveness (contractor reputation, capability, cost, etc. as appropriate) to the Bid Documents.
- Notice of Award – Prepare and issue Notice of Award and distribute to the Owner and Contractor.
- Coordinate Execution of Contract – Prepare and issue Construction Contract for signature by the Owner and Contractor
- Preconstruction Conference Preparation – Prepare Construction Documents for successful bidder (up to five sets) subject to direction and concurrence of the Owner and prepare and distribute the agenda for the Preconstruction Conference
- Preconstruction Conference – The Engineer agrees to conduct a Preconstruction Conference with the successful Bidder(s), Owner, funding agency, and other interested parties wherein a project summary, unique aspects of the project, construction sequencing, contract requirements, construction critical path schedule, schedule of values, and other pertinent information is reviewed for the benefit of the Owner and Contractor.

If a rebid is necessary due to the Owner's request or because adjustments to the designed features are necessary to meet the project budget, the Engineer will be paid an additional fee equivalent to the original fee for bid services.

### **Responsibilities and Deliverables**

#### Owner Responsibilities:

- Provide a meeting place for the pre-bid meeting.
- Publish the advertisement for bids.
- Sign the Notice of Award, Agreement, and Notice to Proceed.

#### Deliverables:

- Addenda as necessary.

- A print and electronic copy of the bid advertisement.
- Bid tabulation and recommendation of award letter.

## **TASK 700 – CONSTRUCTION OBSERVATION SERVICES**

Although the extent of construction observation services cannot be determined at this time, The Engineer anticipates providing construction monitoring and oversight as outlined in the Request for Proposal document. Because of the construction approach preferred by DEQ, the Engineer anticipates full-time construction observation with additional presence by the Engineer to render field decisions regarding landfill cap rehabilitation measures. The Engineer also anticipates the construction schedule will entail one Contractor with construction effort occurring over two construction seasons. Those services will likely entail the following tasks.

### **Phase 0001 - Engineering Services during Construction**

#### Pre-construction Meeting:

The Engineer agrees to prepare for, conduct, and document a pre-construction meeting wherein the Contractor is presented with allowances and constraints on the construction effort, reminded of their responsibilities, and provided clarification of the construction documents through question and answer format.

#### Review Preliminary Schedules:

The Engineer agrees to review and critique the Contractor's preliminary construction schedule. The Engineer agrees to examine the work sequence, durations, interim milestones, and other appropriate scheduling features in accordance with the requirements of the Contract Documents. The Engineer agrees to prepare a letter report summarizing the review comments and agrees to meet and discuss the schedule comments with the Contractor and the Owner.

#### Representation on Behalf of Owner:

The Engineer agrees to consult with and advise Owner and act as its representative during construction. The extent and limitations of the duties, responsibilities and authority of Engineer as assigned herein agrees to not be modified, except as Engineer may otherwise agree in writing. All Owner instructions to Contractor(s) will be issued through Engineer who will have authority to act on behalf of Owner to the extent provided in this scope of services except as otherwise provided in writing.

Engineer agrees to not be responsible for the means, methods, techniques, sequences or procedures of construction selected by Contractor(s) (unless otherwise specified in the construction contract documents) or the safety precautions and programs incident to the work of Contractor(s).

Engineer's efforts agrees to be directed toward providing a greater degree of confidence for Owner that the completed work of Contractor(s) will conform to the Contract Documents, but Engineer agrees to not be responsible for the failure of Contractor(s) to perform the work in accordance with the Contract Documents.

On the basis of on-site examination of materials, equipment, and workmanship, Engineer agrees to keep Owner informed of the progress of the work, agrees to endeavor to guard Owner against defects and deficiencies in such work and may disapprove or reject work failing to conform to the Contract Documents.

The Engineer agrees to assist the contractor's superintendent in understanding the intent of the Contract Documents and serve as Owner's liaison with Contractor, when Contractor's operations affect Owner's on-site operations.

Obtain from Owner additional details or information, when required at the job site for proper execution of the work.

Review Project Construction Schedule:

The Engineer agrees to periodically, presumably monthly, perform a review of progress accomplished during the previous work period, compare that to the planned schedule, and discuss significant discrepancies at the construction progress meeting following submission of the schedule by the Contractor.

Site Visits:

Due to the expected input on project construction, The Engineer anticipates conducting periodic site visits to review the project progress and to address issues documented by the Contractor and/or Owner regarding various project elements. Engineer site visits are anticipated weekly during the construction phase and are anticipated for the construction period of (20) weeks.

This task also includes on-site services for the geotechnical engineer to evaluate soils in the existing ET cap after the topsoil is removed by the Contractor. The geotechnical engineer's efforts will be directed toward further delineating the acceptable soils and the soils that will require some rehabilitation. The on-site time from the geotechnical engineer during the construction phase is estimated at eight (8) weeks, the timing to be determined by the Engineer.

The Engineer agrees to coordinate the weekly site visits with DEQ. DEQ will not likely participate in all weekly site visits, but coordination with DEQ is intended to limit additional trips for the Engineer.

Review Shop Drawings and Test Results:

The Engineer agrees to review and respond to submittals of Shop Drawings, samples, test results, and other data which the Contractor is required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract

Documents. Such review and approval or other action agrees to not extend to means, methods, sequences, techniques or procedures of construction selected by Contractor(s), or to safety precautions and programs incident thereto. Receive and review (for general contents as required by the Specifications) maintenance and operating schedules and instructions, guarantees, bonds and certificates of inspection which are to be assembled by Contractor(s) in accordance with the Contract Documents. The level of effort for reviewing shop drawing will depend upon the rehabilitation method recommended.

Issue Interpretations and Clarifications:

The Engineer agrees to issue instructions of Owner to Contractor(s); issue necessary interpretations and clarifications of the Contract Documents; have authority, as Owner's representative, to require special inspection or testing of the work; act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder, and make decisions on all claims of Owner and Contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work. The Engineer agrees to render interpretations or decisions in good faith and in accordance with the requirements of the Contract Documents.

Changes to the Work:

The Engineer agrees to provide services in connection with processing change orders to reflect changes requested by Owner or Contractor(s), services after the award of contract in evaluating substitutions proposed by Contractor(s), and in making revisions to Drawings and Specifications occasioned thereby, and services resulting from significant delays, changes or price increases occurring as a direct or indirect result of material or equipment shortages. Change orders requested by the Owner that necessitate additional design effort by the Engineer will be compensated on a time and materials basis.

Certify Progress Payments:

As an experienced and qualified professional, and on review of applications for payment and the accompanying data and schedules, determine the amounts owing to Contractor(s) and recommend in writing payments to Contractor(s) in such amounts; such recommendations of payment will constitute a representation to Owner, based on such observations and review, that the work has progressed to the point indicated, that, to the best of Engineer's knowledge, information and belief, the quality of such work is in accordance with the Contract Documents (subject to an evaluation of such work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any qualifications stated in his recommendation), and that payment of the amount recommended is due Contractor(s). The level of effort for reviewing progress payments will depend upon the rehabilitation method recommended. However, the assumed project will require review of 6 pay requests.

**Substantial and Final Completion Inspection:**

Conduct an inspection to determine if the Project is substantially complete, before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.

Conduct a final inspection to determine if the finished work has been completed to the standard required by the Contract Documents, and Contractor has fulfilled all obligations thereunder so that Engineer may recommend, in writing, final payment to Contractor(s) and may give written notice to Owner and the Contractor(s) that the work is acceptable (subject to any conditions therein expressed).

Engineer is not responsible for the acts or omissions of any Contractor, or subcontractor, or any of the Contractor(s)' or subcontractor(s)' agents or employees or any other persons (except Engineer's own employees and agents) at the site(s) or otherwise performing any of the Contractor(s)' work.

**Phase 0002 – Resident Project Representative**

Engineer agrees to provide full-time monitoring of the project during the construction process. Resident Project Representative will be furnished by the Engineer and will act as directed by the Engineer, in order to assist the Engineer in observing performance of the work of the Contractor. Through more extensive on-site observations of the work in progress and field checks of materials and equipment by the Resident Project Representative and Inspector, the Engineer agrees to endeavor to provide further protection for the Owner against defects and deficiencies in the work of the Contractor; but the furnishing of such resident project representation will not make Engineer responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions or programs, or for Contractor's failure to perform their work in accordance with the Contract Documents.

The fee for construction services is based on the construction schedule, assumed at 20 weeks, and typical 40-hour work weeks. The Engineer anticipates 1.0 full-time equivalent(s) for the construction phase. Effort beyond the typical work week or daily hours may be billed at overtime rates. The level of effort for resident services during construction will depend upon the rehabilitation method recommended.

**Duties and Responsibilities:**

Resident Project Representative or Inspector duties are anticipated as:

- Schedules: Perform a review of progress accomplished during the past month and compare to planned schedule and discuss significant discrepancies at construction progress meeting after consulting with the Engineer concerning their acceptability.
- Perform a review of the schedule of Shop Drawing submissions and schedule of values prepared by Contractor, and discuss status at the construction progress meeting after consulting with the Engineer concerning their acceptability.

- Conferences: Conduct preconstruction conferences and construction progress meetings up to a total of twenty (20) additional meetings. Prepare and distribute minutes of such meetings.
- Review of Work, Rejection of Defective Work, Inspections and Tests: Conduct on-site observations of the work in progress to assist Engineer in determining if the work is proceeding in accordance with the Contract Documents and that completed work will conform to the Contract Documents.
- Report to Engineer whenever it is believed that any work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged prior to final payment; and advise Engineer when he believes work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- Verify that tests, equipment and systems start-up and operating and maintenance instructions are conducted as required by the Contract Documents and in presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.
- Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections and report to Engineer.
- Interpretation of Contract Documents: Receive and transmit to or from the Contractor, Owner and Engineer clarifications and interpretations of the Contract Documents.
- Records: Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples submissions, reproductions of original Contract Documents including all addenda, change orders, field orders, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
- Prepare daily reports recording Contractor's hours on the job site, weather conditions, data relative to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions, on-site equipment, subcontractors on-site, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to Engineer.
- Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- Maintain notes to be capable of verifying record drawing information for accuracy and completeness.
- Reports: Furnish Owner periodic reports as required of progress of the work and Contractor's compliance with the approved progress schedule and schedule of Shop Drawing submissions.
- Consult with Owner in advance of scheduled major tests, inspections or start of important phases of the work.
- Report immediately to Owner upon the occurrence of accidents.
- Payment Application: Review the applications for payment with Contractor's for compliance with the established procedure for their submission and forward them with recommendations to the Engineer, noting particularly their relation to the schedule of

values, work completed, and materials and equipment delivered at the site but not incorporated into the work.

- Completion: Before Engineer issues a Certificate of Substantial Completion, submit to the Contractor a list of observed items requiring completion or correction. Conduct final inspection in the company of the Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected. Verify that all items on the final list have been completed or corrected and make recommendations to the Engineer concerning acceptance.

Limitations of Authority:

Except upon written instructions, Resident Project Representative:

- Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
- Shall not undertake any of the responsibilities of Contractor, subcontractors or Contractor's superintendent, or expedite the work.
- Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- Shall not advise on or issue directions as to safety precautions and programs in connection with the work;
- Shall not authorize Owner to occupy the Project in whole or in part.

**Phase 0003 - Post Construction Services**

Record Drawings:

The Engineer agrees to prepare a set of reproducible record drawings on full-size sheets showing those changes made during the construction process, based on the marked-up prints, drawings and other data furnished by Contractor(s) to Engineer and which Engineer has reviewed for accuracy and completeness against the information provided by the Contractor.

O&M Manual / Submittals:

The Engineer agrees to compile the Contractor submittals to document materials used for incorporation into existing Operation and Maintenance Manuals. The submittals are anticipated for submittal at the conclusion of the construction phase after the vendor supplied information is submitted.

**Phase 0004 – Materials Testing During Construction**

Materials testing services are sometimes included in the Contractor's scope of work. However, an alternative philosophy is to place the management of the quality control function in the purview of the Owner, which will be imperative with this project to satisfy DEQ. Based on this philosophy, the Engineer agrees to perform on-site materials testing using a nuclear density gage

as needed to document proper embankment and backfill compaction as well as laboratory analysis to classify and characterize the soils. The anticipated individual services are discussed below:

Exploration Pits and Field Observation :

The Engineer agrees to coordinate with the Contractor for the Contractor to advance exploration pits within the existing ET Cap whereupon the Engineer can observe the thickness and the soil profile of the ET Cap, measure the soil density, and collect suitable soil samples for further laboratory analysis. The Engineer anticipates coordinating with DEQ regarding the number of exploration pits that would be acceptable, then assisting the Contractor in advancing additional exploration pits (assumed at 32) with field and laboratory testing completed on samples for each of the pits, some tests being conducted for samples collected at multiple layers within each pit as determined by field conditions and engineering judgment.

- *Exploration Pit Location:* The Engineer anticipates identifying the locations for advancing exploration pits across the landfill site during the construction phase by field observation of in-situ soil conditions and locating those pits utilizing survey grade GPS equipment.
- *ET Cap Thickness:* The Engineer anticipates evaluating the ET Cap thickness using a standard tape measure,
- *Soil Profile:* The Engineer anticipates logging the soil profile noting changes in the soil profile for each exploration pit.
- *Soil Density:* The Engineer anticipates using a nuclear densometer to record in-sit soil densities for each exploration pit at for each distinct soil type identified in the field.
- *Soil Moisture:* The Engineer anticipates using a nuclear densometer to record in-situ soil moisture values for each exploration pit at regular intervals through the depth of the exploration pit.
- *Soil Sampling:* The Engineer anticipates collecting soil samples of each soil type encountered throughout the depth of each exploration pit for subsequent laboratory analysis.

Laboratory Testing:

The Engineer agrees to perform laboratory testing on the soil samples and to determine the classification and soil texture from both an engineering perspective and an agronomic efficacy to sustain vegetation using the USDA-NRCS convention. Testing will be performed on representative soil samples. The exact number and types of test will depend upon the variability of materials collected during the field investigation, as assessed by the Engineer. Proposed tests include the following:

- *Sieve Analysis:* Sieve analysis throughout the construction as determined by the Engineer to document both existing and proposed soil properties for determination of suitability for use as ET cap material.
- *Engineering Classification:* The Engineer agrees to classify the samples collected from the exploration pits and from embankment intended for landfill cap rehabilitation according to standard AASHTO standards.

- *Agronomic Classification:* The Engineer agrees to classify selected samples collected from the exploration pits and from embankment intended for landfill cap rehabilitation using the USDA-NRCS convention
- *Specific Gravity:* The Engineer agrees to perform laboratory tests to determine the specific gravity on selected samples collected from the exploration pits and from embankment intended for landfill cap rehabilitation.
- *Unit Weight:* The Engineer agrees to perform laboratory tests to determine the unit weight on selected samples collected from the exploration pits and from embankment intended for landfill cap rehabilitation.
- *Hydrologic Properties:* The Engineer agrees to perform hydrologic analyses tests, including moisture retention characteristics, water holding capacity, and effective porosity, for select soil samples collected from the exploration test pits and from selected embankment intended for landfill cap rehabilitation.

## **TASK 800 – SURVEY SERVICES**

### **Phase 0001 - Construction Survey:**

Engineer agrees to provide construction surveying and measurements necessary to establish the principal components of the work. It is anticipated that detailed survey required for placement of grading layout of project components, establishing line and grade, etc, will be provided by the Engineer as an additional service or by the Contractor as part of his normal work process.

## **900 - ADDITIONAL SERVICES**

### **TASK 901 – CONSTRUCTION SURVEY**

The Engineer assumes that detailed survey of the existing landfill and ET Cap has been completed and is available in electronic format suitable for design effort and can be provided by the Owner. Additional surveying and mapping is necessary, the Engineer may provide those services and be compensated as an additional service task.

#### **Phase 0001 - Construction Staking:**

Construction Staking may be provided to the Owner or the Owner's Contractor during the construction phase to locate the design features horizontally and vertically for the convenience of the Contractor. Owner/Contractor is responsible for the site including construction stakes following installation. Removal or destruction of staking for any reason or by any party other than the Engineer that results in a request for re-staking will be charged at the current hourly rates for a survey crew. Restaking will not be performed without written authorization from the Owner, which may include the Contractor if so authorized. If requested, the Engineer will endeavor to provide stakes as requested by the contractor but will require a minimum of 48 hours notice before dispatching field crews. Stakes destroyed or removed for any reason not directly attributable to the Engineer that result in a request for restaking will be charged to the Owner. The expected effort for construction staking does not exceed 150 hours.

### **TASK 902 – PERFORMANCE PERIOD SERVICES**

The services anticipated by the Engineer include:

#### **Phase 001 – Warrantee Services**

##### **Warrantee Items:**

The Contractor's work will be warranted for one year. The Engineer agrees to coordinate and negotiate warranty items for the Owner during the one-year warranty period on a time and materials basis. The level of effort for coordinating the Contractor's attention to warranty items is assumed to require 10 to 40 hours with a commensurate estimated cost of \$1,250 to \$5,000

##### **Warrantee Inspection:**

If requested by the Owner, near the end of the contractor's warrantee period, Engineer agrees to conduct an inspection of the project with the contractor, the Owner, and other concerned parties in attendance as invited by the Owner. The purpose of this inspection is to review the performance of the project and to insure that warrantee items are addressed prior to releasing the contractor's bond. The level of effort for the warrantee inspection is assumed to require 8 to 12 hours with a commensurate estimated cost of \$1,000 to \$1,500.

## **TASK 903 – ADDITIONAL TESTING AND MONITORING**

The DEQ response to the Phase II report suggests that additional testing and monitoring of the existing ET Cap may be warranted. Also, the leachate discharge may not be fully characterized or the source completely understood in relation to the ET Cap. The discharge of liquid during spring melt conditions provides an indirect measure of the performance of the ET Cap. If the Owner elects to pursue, and DEQ agrees to allow, a design approach where additional characterization of the existing cap precedes preparation of design documents, additional testing of the existing cap will be required to better understand and delineate the ET cap construction consistency and soil homogeneity. .

### **Phase 0001 - Exploration Pits and Field Observation**

The Engineer agrees to coordinate with the Owner for the Owner to advance exploration pits within the existing ET Cap whereupon the Engineer can observe the thickness and the soil profile of the ET Cap, measure the soil density, and collect suitable soil samples for further laboratory analysis. The Engineer anticipates coordinating with DEQ regarding the number of exploration pits that would be acceptable, then assisting the Owner in advancing approximately 32 additional exploration pits with field and laboratory testing completed on samples for each of the pits, some tests being conducted for samples collected at multiple layers within each pit as determined by field conditions and engineering judgment.

- *Exploration Pit Location:* The Engineer anticipates establishing a rough grid for advancing exploration pits across the landfill site and locating those pits utilizing survey grade GPS equipment.
- *ET Cap Thickness:* The Engineer anticipates evaluating the ET Cap thickness using a standard tape measure,
- *Soil Profile:* The Engineer anticipates logging the soil profile noting changes in the soil profile for each exploration pit.
  
- *Soil Density:* The Engineer anticipates using a nuclear densometer to record in-sit soil densities for each exploration pit at for each distinct soil type identified in the field.
- *Soil Moisture:* The Engineer anticipates using a nuclear densometer to record in-situ soil moisture values for each exploration pit at regular intervals through the depth of the exploration pit.
- *Soil Sampling:* The Engineer anticipates collecting soil samples of each soil type encountered throughout the depth of each exploration pit for subsequent laboratory analysis.
- *Hydraulic Conductivity:* The Engineer anticipates performing in-situ hydraulic conductivity testing using a double ring infiltrometer apparatus or other method as determined by the Engineer at a minimum of four selected locations across the landfill site for use in model calibration.
- *Temperature, Humidity, Wind Speed:* The Engineer agrees to coordinate collection of weather related data applicable to the landfill site. Some information may be extracted from the weather station at the Driggs Airport while other data points may be gathered at

the site. It may prove beneficial to locate a portable weather station and data logger at the landfill.

### **Phase 0002 - Laboratory Testing**

The Engineer agrees to perform laboratory testing on the soil samples and to determine the classification and soil texture from both an engineering perspective and an agronomic efficacy to sustain vegetation using the USDA-NRCS convention. Testing will be performed on representative soil samples. The exact number and types of test will depend upon the variability of materials collected during the field investigation, as assessed by the Engineer. Proposed tests include the following:

- *Sieve Analysis:* The Engineer agrees to perform a sieve analysis on up to 18 selected samples collected from the exploration pits for use in soil classification.
- *Engineering Classification:* The Engineer agrees to classify the samples collected from the exploration pits according to standard AASHTO standards.
- *Agronomic Classification:* The Engineer agrees to classify the samples collected from the exploration pits using the USDA-NRCS convention
- *Specific Gravity:* The Engineer agrees to perform laboratory tests to determine the specific gravity on selected samples collected from the exploration pits.
- *Unit Weight:* The Engineer agrees to perform laboratory tests to determine the unit weight on selected samples collected from the exploration pits.
- *Hydrologic Properties:* The Engineer agrees to perform hydrologic analyses tests, including moisture retention characteristics, water holding capacity, and effective porosity, for select soil samples collected from the exploration test pits.

### **TASK 904 – ET CAP PERFORMANCE TESTING**

The Engineer agrees to perform in-situ ET Cap performance testing at one or two locations on the landfill site using a volumetric lysimeter designed by the Engineer and installed by the Owner or Contractor, initially anticipated as an installation approximately 20 foot by 30 foot consisting of a geomembrane barrier, a drainage collection layer, a collection pipe, and a tank. The percolation will likely be monitored by measuring the water level in the tank using a pressure transducer or a float and pulse counter, or possibly using a hook gauge or measuring tape.

In addition, the surface water runoff will be collected and reported as part of the lysimeter installation. Storm water and snow melt obviously have a significant impact on the landfill liquid discharge and an evaluation of the land fill drainage characteristics and features will be evaluated.

## **TASK 905 – GRANT PROCUREMENT AND ADMINISTRATION**

Upon Owner and DEQ concurrence of the rehabilitation method, it may prove necessary to pursue outside grant funding to assist the Owner in securing adequate funding to complete design and construction activities. While grant funding is not widely available for solid waste projects, there may be some sources that are not currently identified for which the Owner may be eligible. In that case, the Engineer agrees to assist the Owner in identifying the grant source, completing grant applications, and administering the grant funding. Compensation for grant procurement and administration will be determined when those activities are approved by the Owner and are likely to be assessed as a lump sum fee for grant preparation and as a percentage of the grant for administration. The level of effort for researching grants and assisting with applications is assumed to require 20 to 40 hours with a commensurate estimated cost of \$2,500 to \$5,000

## **TASK 906 – EROSION AND SEDIMENT CONTROL PLAN (ESCP) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

If requested by the Client, the Engineer agrees to prepare an erosion control and sediment control plan describing temporary and permanent erosion control measures correlated to industry Best Management Practices (BMP) including diagrams indicating proposed locations where erosion and sediment control devices or pollution control measures may be required during construction; on-site staging areas, off-site material, waste, borrow or equipment storage or staging areas; locations of agency defined hazardous materials; any known industrial stormwater discharges other than from project construction; and waters of the United States including wetlands, and storm sewer inlets. The plan may also include an initial schedule detailing the proposed sequence of construction and related erosion control measures. The level of effort for researching grants and assisting with applications is assumed to require 15 to 30 hours with a commensurate estimated cost of \$2,000 to \$4,000

## **TASK 907 – FINANCIAL ANALYSIS AND RATE STUDY**

It may become necessary for the Owner to fund a portion, or all, of the design and construction activity from general obligation bonds and tipping fees. In that case, and at the Owner's direction, the Engineer agrees to prepare a financial analysis and rate study evaluating the current budget and operations in conjunction with the proposed project costs and recommend a financing strategy comprised of a combination of reserve funds, bond instruments and associated debt service, tipping fees, and grant receipts to offset the expense of capital projects, interest payments, and operation and maintenance costs. The financial analysis and rate study will likely include pro-forma income statements demonstrating the viability of the operation through the life of any debt instrument. Compensation for financial analysis and rate study will be determined upon authorization for that service. The level of effort for researching grants and assisting with applications is assumed to require 40 to 60 hours with a commensurate estimated cost of \$5,000 to \$7,500

## **TASK 908 – DEMONSTRATION PROJECT**

As the need for data becomes more apparent and the cost to gather the necessary data to justify the equivalent criterion for the ET Cap in comparison to a prescriptive cover, an opportunity may arise to pursue funding for a demonstration or pilot project through DEQ, EPA, or other sources. The intent of this effort would be to identify funding that would offset, or even subsidize, the effort associated with development of the Phase II Report Amendment (Corrective Action Plan). If this opportunity is presented or this avenue requested by the Owner, the Engineer agrees to develop a demonstration or pilot project that qualifies for the funding identified, meets the objectives of the demonstration or pilot project, and satisfies the data needs for developing the Corrective Action Plan, preferably with the result of reducing the capital cost associated with the assumed rehabilitation method.